IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Examiner: Unassigned TETSUYA YANO ET AL.) Group Art Unit: Unassigned Application No.: Not Yet Assigned - Based on Japanese Priority Appln. No. 2000-095008 Filed March 30, 2000 Filed: March 29, 2001 For: NUCLEIC ACID FRAGMENT PRIMER OR PROBE, AND METHOD OF DETECTING POLYHYDROXYALKANOATE SYNTHESIZING MICROORGANISM BY March 28, 2001 USING THE SAME)

Commissioner for Patents Washington, D.C. 20231

PRELIMINARY AMENDMENT AND STATEMENT VERIFYING IDENTITY OF PAPER COPY AND COMPUTER READABLE COPY OF SEQUENCE LISTING

Sir:

Prior to receipt of the first action and contemporaneous with the filing of the subject application, kindly amend the application as follows.

IN THE CLAIMS:

Please amend claims 8, 9, 10-18, 23 and 24 as follows. A marked-up copy of the amended claims showing the changes made thereto, is attached.

- --8. (Amended) The primer according to claim 5, wherein the base sequence of a nucleic acid fragment for said primer is a modified base sequence subjected to a mutation, comprising partial deletion of the base sequence, addition of an extra base or base sequence, or substitution of a base or partial sequence in the base sequence with other base or base sequence, or combination thereof, based on a base sequence shown in SEQ ID NO: 1 to 9 or complementary base sequence thereof.
- 9. (Amended) The primer according to claim 7, wherein the base sequence of said at least one of said two kinds of nucleic acid fragments is a modified base sequence subjected to a mutation, comprising partial deletion of the base sequence, addition of an extra base or base sequence, or substitution of a base or partial sequence in the base sequence with other base or base sequence, or combination

thereof, based on a base sequence shown in SEQ ID NO: 1 to 9 or complementary base sequence thereof.

- 10. (Amended) The primer according to claim 5, wherein said primer comprises at least one kind of nucleic acid fragment subjected to an additional modification, and the additional modification in one kind of said nucleic acid fragment is introduction of a marker or moiety capable of binding to a solid-phase carrier into a 5'-terminal side of the nucleic acid fragment.
- 11. (Amended) The probe according to claim 6, wherein said probe comprises at least one kind of nucleic acid fragment subjected to an additional modification, and the additional modification in one kind of said nucleic acid fragment is introduction of a marker or moiety capable of binding to a solid-phase carrier into a 5'-terminal side of the nucleic acid fragment.
- 12. (Amended) The primer according to claim 7, wherein said primer comprises at least one kind of nucleic acid fragment subjected to an additional modification, and

the additional modification in one kind of said nucleic acid fragment is introduction of a marker or moiety capable of binding to a solid-phase carrier into a 5'-terminal side of the nucleic acid fragment.

- 13. (Amended) The primer according to claim 8, wherein said primer comprises at least one kind of nucleic acid fragment subjected to an additional modification, and the additional modification in one kind of said nucleic acid fragment is introduction of a marker or moiety capable of binding to a solid-phase carrier into a 5'-terminal side of the nucleic acid fragment.
- 14. (Amended) The primer according to claim 5, wherein a marker or a moiety capable of binding to a solid-phase carrier to be introduced into a molecule as an additional modification is any of biotin residue, 2,4-dinitrophenyl group, and digoxigenin residue.
- 15. (Amended) The primer according to claim 6, wherein a marker or a moiety capable of binding to a solid-phase carrier to be introduced into a molecule as an

additional modification is any of biotin residue, 2,4-dinitrophenyl group, and digoxigenin residue.

- 16. (Amended) The primer according to claim 7, wherein a marker or a moiety capable of binding to a solid-phase carrier to be introduced into a molecule as an additional modification is any of biotin residue, 2,4-dinitrophenyl group, and digoxigenin residue.
- 17. (Amended) The primer according to claim 9, wherein a marker or a moiety capable of binding to a solid-phase carrier to be introduced into a molecule as an additional modification is any of biotin residue, 2,4-dinitrophenyl group, and digoxigenin residue.
- 18. (Amended) The primer according to claim 10, wherein a marker or a moiety capable of binding to a solid-phase carrier to be introduced into a molecule as an additional modification is any of biotin residue, 2,4-dinitrophenyl group, and digoxigenin residue.

- 23. (Amended) The method of detecting a polyhydroxyalkanoate synthesizing microorganism according to claim 22, wherein said method uses the primer comprising a combination of two kinds of nucleic acid fragments.
- 24. (Amended) The method of detecting a polyhydroxyalkanoate synthesizing microorganism according to claim 21, wherein said elongation reaction of a primer in said adding step (3) is performed by a polymerase chain reaction.

REMARKS

The claims have been amended in order to resolve minor informalities regarding improper multiple dependencies and in claim language.

I hereby state that the information recorded in computer readable form is identical to the written sequence listing enclosed.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

- --8. (Amended) The primer according [any of] claim 5, wherein the base sequence of a nucleic acid fragment for <u>said</u> primer [according to claim 5] is a modified base sequence subjected to a mutation, [such as] <u>comprising</u> partial deletion of the base sequence, addition of an extra base or base sequence, or substitution of a base or partial sequence in the base sequence with other base or base sequence, or combination thereof, based on a base sequence shown in SEQ ID NO: 1 to 9 or complementary base sequence thereof.
- 9. (Amended) The primer according to claim 7, wherein the base sequence of said at least one of said two kinds of nucleic acid fragments [a nucleic acid fragment for primer according to claim 5] is a modified base sequence subjected to a mutation, [such as] comprising partial deletion of the base sequence, addition of an extra base or base sequence, or substitution of a base or partial sequence in the base sequence

with other base or base sequence, or combination thereof, based on a base sequence shown in SEQ ID NO: 1 to 9 or complementary base sequence thereof.

- 10. (Amended) The primer [or probe] according to claim 5, wherein said primer [or probe] comprises at least one kind of nucleic acid fragment subjected to an additional modification, and the additional modification in one kind of said nucleic acid fragment is introduction of a marker or moiety capable of binding to a solid-phase carrier into a 5'-terminal side of the nucleic acid fragment.
- 11. (Amended) The [primer or] probe according to claim 6, wherein said [primer or] probe comprises at least one kind of nucleic acid fragment subjected to an additional modification, and the additional modification in one kind of said nucleic acid fragment is introduction of a marker or moiety capable of binding to a solid-phase carrier into a 5'-terminal side of the nucleic acid fragment.
- 12. (Amended) The primer [or probe] according to claim 7, wherein said primer [or probe] comprises at least one

kind of nucleic acid fragment subjected to an additional modification, and the additional modification in one kind of said nucleic acid fragment is introduction of a marker or moiety capable of binding to a solid-phase carrier into a 5'-terminal side of the nucleic acid fragment.

- 13. (Amended) The primer [or probe] according to claim 8, wherein said primer [or probe] comprises at least one kind of nucleic acid fragment subjected to an additional modification, and the additional modification in one kind of said nucleic acid fragment is introduction of a marker or moiety capable of binding to a solid-phase carrier into a 5'-terminal side of the nucleic acid fragment.
- 14. (Amended) The primer [or probe] according to claim 5, wherein a marker or a moiety capable of binding to a solid-phase carrier to be introduced into a molecule as an additional modification is any of biotin residue, 2,4-dinitrophenyl group, and digoxigenin residue.
- 15. (Amended) The [primer or] probe according to claim 6, wherein a marker or a moiety capable of binding to a

solid-phase carrier to be introduced into a molecule as an additional modification is any of biotin residue, 2,4-dinitrophenyl group, and digoxigenin residue.

- [any of] claim 7 [or 8], wherein a marker or a moiety capable of binding to a solid-phase carrier to be introduced into a molecule as an additional modification is any of biotin residue, 2,4-dinitrophenyl group, and digoxigenin residue.
- 17. (Amended) The primer [or probe] according to claim 9, wherein a marker or a moiety capable of binding to a solid-phase carrier to be introduced into a molecule as an additional modification is any of biotin residue, 2,4-dinitrophenyl group, and digoxigenin residue.
- [any one of claims] claim 10 [to 13], wherein a marker or a moiety capable of binding to a solid-phase carrier to be introduced into a molecule as an additional modification is any of biotin residue, 2,4-dinitrophenyl group, and digoxigenin residue.

- 23. (Amended) The method of detecting a polyhydroxyalkanoate synthesizing microorganism according to [any of] claim [21 or] 22, wherein said method uses the primer comprising a combination of two kinds of nucleic acid fragments [according to claim 7].
- 24. (Amended) The method of detecting a polyhydroxyalkanoate synthesizing microorganism according to [any of] claim 21 [or 22], wherein said elongation reaction of a primer in said adding step (3) is performed by a polymerase chain reaction.

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